Wildfire Mitigation Planning: Trends & Strategies

Kate Strickland | 2025 NASUCA Annual Meeting (Nov 10)

Smart Electric Power Alliance

Vision

A clean, affordable, and resilient energy system for all.

Mission

SEPA works at the intersection of technology, policy, and programs to identify and share solutions to the biggest challenges facing utilities, their partners, and policymakers as they strive to deliver clean, affordable, and resilient energy to all customers.

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SEPA has 1,000 members representing the full spectrum of the energy industry

65%+

of US utility customer accounts served

86%

of Public Utility Commissions & Public Service Commissions

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Five-Year Strategic Focus Areas

Grid

The grid is the backbone of the clean energy transition. Modernizing it with advanced technologies and customer-centric programs is critical to ensuring resilience and meeting evolving energy needs.

Growth

As electricity demand rises with increased electrification, managing this growth is essential. SEPA works with stakeholders to implement strategies that meet new demand reliably, sustainably, and affordably.

Globe

By leveraging domestic and international innovations, SEPA equips members with scalable solutions to accelerate progress efficiently.

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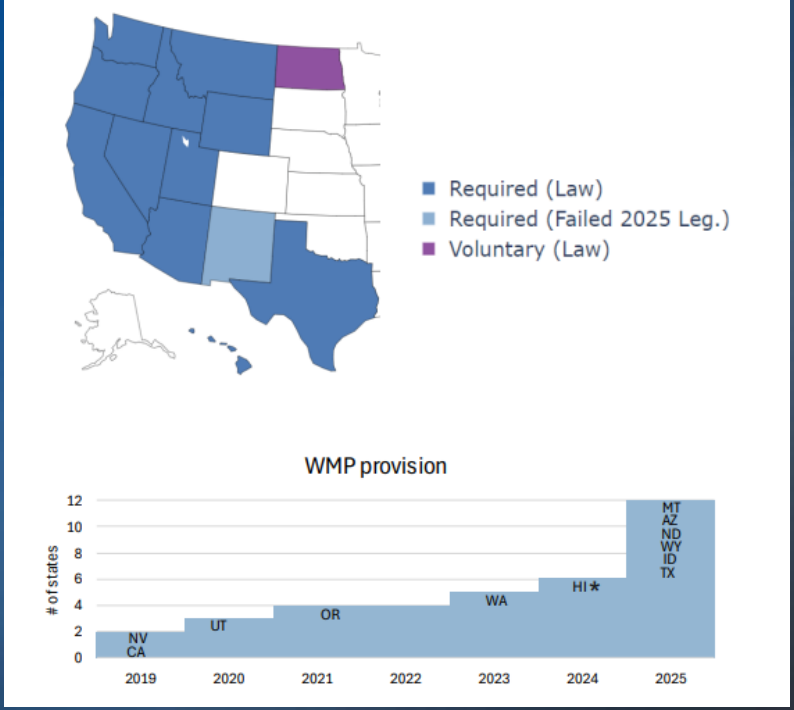
Wildfire Mitigation Plans



Key Components of Wildfire Mitigation Plans:

- **Risk Assessment:** High-resolution data map, historical analysis, and population density.
- **Situational Awareness, Operations, and Maintenance:** Increased sensors for protection, expanded vegetation management cycles, enhanced inspection and replacement.
- **Emergency Measures:** Transparent criteria and protocols, and integration with state and local emergency management and first responders, including public safety power shutoff measures.
- **Community Protection & Outreach:** Community resource centers, partnerships with CBOs, and community campaigns.
- **Financial & Risk Management:** Cost-benefit analysis of mitigation strategies, enterprise risk management, and insurance information.

Source: Pacific Northwest National Laboratory (2025). Wildfire Mitigation Plans Database.

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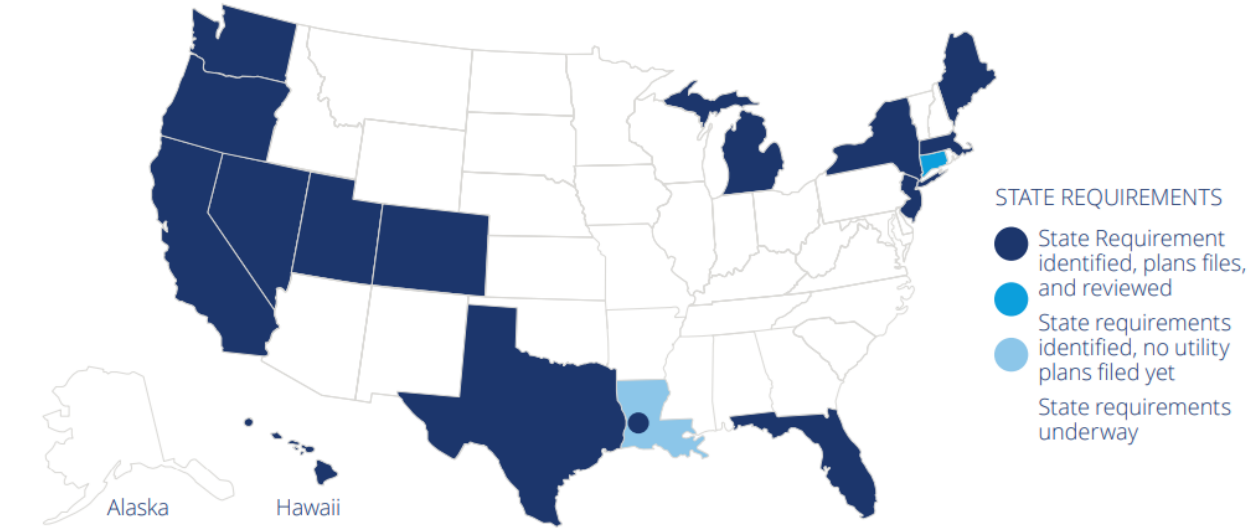
Resilient By Design: Climate-Ready Distribution Systems

Figure 3. Status of Resilience Planning Requirements and Utility Filings



Source: LBNL (2025). Recreated by SEPA.

Source: SEPA, Rhizome (2025). *Resilient by Design: Utility Strategies for Climate-Ready Distribution Systems*

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Resilient By Design: Climate-Ready Distribution Systems

Table 3. Integrated, Community-Centric Planning and Performance Tracking

Key Trends	Utility Examples
Comprehensive Risk and Scenario Integration	▪ California IOUs use Global Climate Models to incorporate wildfire, drought, and heat projections into long-term planning through the Climate Adaptation Vulnerability Assessments (CAVA) and Wildfire Mitigation Plans (WMP).[16]
Formal Resilience Integration into Core Plans	▪ Utilities like Con Edison and Hawaiian Electric Company (HECO) integrate resilience goals directly into long-range transmission and distribution strategies and operational investment plans
Advanced Analytics and Forecasting	▪ Oncor and California IOUs leverage AI and remote sensing (e.g., LiDAR satellite imaging) to identify high-risk vegetation zones and enhance grid flexibility. ▪ SCE developed "Community Resilience" and "Community Impact" metrics using AI-informed data layers to guide equity investments.
Organizational Leadership	▪ Utilities such as HECO and Con Edison established dedicated resilience working groups and cross-functional teams that coordinate planning and stakeholder input.
Resilience Metrics and Feedback Loops	▪ Oncor tracks normalized event impact, restoration duration, cyber resilience, and outage minutes by asset class. ▪ Con Edison uses outcome-based and implementation-based metrics tied to investments in DACs and flood-prone substations.
Equity-Driven Planning and Engagement	▪ Con Edison and IOUs in California systematically map investments in disadvantaged communities and use these overlays in decision-making. ▪ HECO incorporates community input via its Resilience Working Group, while Consumers proposes dedicated annual meetings with EJ communities.

Source: SEPA & Rhizome (2025)

Source: SEPA, Rhizome (2025). *Resilient by Design: Utility Strategies for Climate-Ready Distribution Systems*

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